

UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION

GEORGETOWN RAIL EQUIPMENT  
COMPANY, a Texas corporation,

Plaintiff,

v.

TETRA TECH CANADA INC.,

Defendant.

Case No. 6:18-cv-377

**COMPLAINT FOR PATENT INFRINGEMENT AND DEMAND FOR JURY TRIAL**

Plaintiff Georgetown Rail Equipment Company (“Plaintiff” or “Georgetown”), files this Complaint for Patent Infringement and Demand for Jury Trial against Tetra Tech Canada Incorporated (“Tetra Tech Canada”) and alleges as follows:

**NATURE OF THE ACTION**

1. This is an action arising under the United States Patent Laws, 35 U.S.C. §§ 1, *et seq.*, including 35 U.S.C. § 271. Georgetown brings this action to seek damages and injunctive relief arising out of Tetra Tech Canada’s infringement of Georgetown’s U.S. Patent No. 7,616,329 (“the ’329 Patent”), U.S. Patent No. 8,081,320 (“the ’320 Patent”), and U.S. Patent No. 9,441,956 (“the ’956 Patent”), collectively the “Asserted Patents.” The ’329 Patent, the ’320 Patent, and the ’956 Patent are attached as Exhibits A, B, and C, respectively.

**PARTIES**

2. Georgetown is a Texas corporation, having a principal place of business at 111 Cooperative Way, Suite 400, Georgetown, Texas 78626.

3. On information and belief, Tetra Tech Canada is a Canadian corporation with offices located throughout Canada. On information and belief, Tetra Tech Canada conducts business at 14940 – 123 Avenue Edmonton, Alberta, T5V 1B4, Canada. On information and belief, Tetra Tech Canada may be served in accordance with the terms of the Hague Convention at the address of its registered office at 595 Burrard Street, Suite 2600, Vancouver, British Columbia, V7X 1L3, Canada.

4. On information and belief, Tetra Tech EBA Incorporated (“Tetra Tech EBA”) was a corporation organized and existing under the laws of the province of Alberta, having its principal office or place of business at 14940 – 123 Avenue, Edmonton, Alberta, T5V 1B4, Canada. On information and belief, on or about December 14, 2016, Tetra Tech EBA was continued as a federal corporation with a registered office located at 595 Burrard Street, Suite 2600, Vancouver, British Columbia, V7X 1L3, Canada.

5. On information and belief, on January 1, 2017, Tetra Tech EBA Inc. amalgamated into Tetra Tech Canada, and Tetra Tech Canada is subject to all liabilities of Tetra Tech EBA, including the infringing conduct of Tetra Tech EBA alleged herein.

#### **JURISDICTION AND VENUE**

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. Venue is proper in this district under 28 U.S.C. § 1391(c)(3).

8. On information and belief, prior to its amalgamation into Tetra Tech Canada, Tetra Tech EBA sold, offered to sell, used, and/or imported the accused products listed herein in the United States.

9. On information and belief, after Tetra Tech EBA's amalgamation into Tetra Tech Canada, Tetra Tech Canada sold, offered to sell, used, and/or imported the accused products listed herein in the United States.

10. On information and belief, Tetra Tech Canada is subject to this Court's specific personal jurisdiction consistent with the principles of due process and the Federal Long-Arm Statute of Fed. R. Civ. P. 4(k)(2) because: (1) it has substantial contacts with the United States and committed and/or induced acts of patent infringement in the United States; and (2) it is not subject to jurisdiction in any state's courts of general jurisdiction.

### **FACTS GIVING RISE TO THIS ACTION**

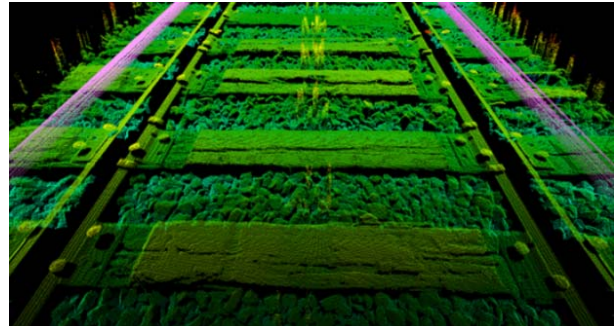
#### **Development and Success of Georgetown's AURORA® Track Inspection Technology**

11. Georgetown develops and provides innovative, safe, and efficient tools and equipment for use in the railroad industry.

12. In 2003, Georgetown invented its AURORA® track inspection technology. AURORA® is "machine vision" technology that includes cameras and lasers mounted on the rear of an AURORA® vehicle. As the vehicle travels along the railroad track at speeds up to 42 miles per hour, the system captures images of the track and processes collected data to assist railroad companies with identifying and repairing defective track components.

13. Before AURORA®, railroad companies relied on manual inspection as the primary method to evaluate track condition. The method required one or more track inspectors to physically walk the railroad track to evaluate and record the conditions of various track components. This process was inefficient, imprecise, and detected wear visible only to the human eye. AURORA® automated this process by identifying track defects not visible to the human eye using an objective methodology far more accurate than manual inspection. Below

are photographs of an AURORA® inspection vehicle (left) and a three-dimensional image of a railroad track generated by AURORA® (right):



14. Georgetown offers AURORA® in the North American market, and its primary and target customers are the seven “Class 1” railroad companies operating in the United States: (1) BNSF Railway; (2) Union Pacific Railroad; (3) CSX Transportation; (4) Kansas City Southern; (5) Norfolk Southern Railway; (6) Canadian Pacific Railway; and (7) Canadian National Railway.

15. Georgetown has invested significant resources in protecting and defending the intellectual property embodied by its products, including AURORA®. The United States Patent and Trademark Office has awarded dozens of patents to Georgetown, including the Asserted Patents, which relate to the AURORA® technology.

#### **Tetra Tech’s Infringement of the Asserted Patents**

16. On information and belief, Tetra Tech Canada has, and continues to, use, sell, offer to sell, and/or import railroad track inspection systems in the United States in competition with Georgetown.

17. On information and belief, Tetra Tech Canada, by itself or through Tetra Tech EBA, has used, sold, offered to sell, and/or imported its 3D Track Assessment System

(“3DTAS”) in the United States. On information and belief, Tetra Tech Canada’s, and Tetra Tech EBA’s target customers for 3DTAS are, and have been, Class 1 railroad companies.

18. On information and belief, Tetra Tech Canada, by itself or through Tetra Tech EBA, installed hardware for 3DTAS on at least one of Canadian National Railway’s geometry cars and used 3DTAS to process data collected on Canadian National Railway’s track located in the United States.

19. On information and belief, Tetra Tech Canada, by itself or through Tetra Tech EBA, has used 3DTAS in Illinois. On information and belief, on or about December 16, 2017, Tetra Tech Canada used 3DTAS to process data for Canadian National Railway for track located in Illinois and/or induced Canadian National Railway to use 3DTAS in Illinois. On information and belief, hardware for the accused 3DTAS system is visible in the following photograph taken on or about December 16, 2017 in Champaign, Illinois, and available on the University of Illinois’s website at <http://railtec.illinois.edu/CEE/Railroad%20Students/Events/fieldtrips.html>:





20. On information and belief, Tetra Tech Canada, by itself or through Tetra Tech EBA, has used 3DTAS in Michigan. On information and belief, in 2016, Tetra Tech EBA used 3DTAS to process data for Canadian National Railway for track located in Michigan and/or induced Canadian National Railway to use 3DTAS in Michigan. On information and belief, hardware for the accused 3DTAS System is visible in the bottom photograph taken on or about May 17, 2016 in Highland Park, Michigan, and available on the following webpage at <http://www.canadianrailwayobservations.com/RESTRICTED/2016/June2016/cn.htm>:

Kenneth Borg submitted his cool shots of the CN track inspection train S.B. on the Holly Sub at Victor St in Highland Park, MI on May 17th led by GTW SD40-3 5951 still wearing its ALSTOM KCS paint colours.



21. On information and belief, Tetra Tech EBA provided services to at least one Class 1 railroad company for use of 3DTAS in the United States. On information and belief, and from the evidence of Tetra Tech EBA's corporate representative at trial in *Georgetown Rail Equipment Company v. Tetra Tech EBA Inc.*, T-896-15, Federal Court of Canada (the "Canadian Action"), Canadian National operates its trains in subdivisions in both Canada and the United States. On information and belief, and from the Reasons for Judgment in the Canadian Action, Canadian National installed the equipment provided by Tetra Tech EBA on its rail cars to collect image data and perform initial processing, and Tetra Tech EBA then conducted further processing and analysis of the collected data.

#### **Tetra Tech's Adjudged Infringement in Canada**

22. Tetra Tech Canada and Tetra Tech EBA also made, used, sold, and/or offered to sell 3DTAS in Canada.

23. In 2015, Georgetown sued Tetra Tech EBA in the Canadian Action, alleging that Tetra Tech's acts of using, offering to sell, selling, and inducing and procuring their customers and potential customers to use 3DTAS infringed two of Georgetown's Canadian patents: 2,572,082 ("the CA '082 Patent") and 2,766,249 ("the CA '249 Patent").

24. The CA '082 Patent is the Canadian national-phase counterpart to the '329 Patent asserted in this action, and the CA '249 Patent is the Canadian national-phase counterpart to the '320 Patent asserted in this action.

25. On January 25, 2018, following a multi-day trial, the Canadian Court entered its Judgment and Reasons in favor of Georgetown, finding that: (1) Tetra Tech EBA infringed claims 16, 37, 58, 67, 70, 71, and 73 of the CA '082 Patent; (2) Tetra Tech EBA infringed claims

7, 11, and 18 of the CA '249 Patent; and (3) the asserted claims of the CA '082 Patent and the CA '249 Patent were valid.

**FIRST CLAIM FOR RELIEF**  
**Infringement of the '329 Patent**

26. Each of the preceding paragraphs are incorporated by reference as if set forth fully herein.

27. Georgetown owns all substantial rights to the '329 Patent, including the right to exclude others and to sue and recover damages for the past, present, and future infringements thereof.

28. The inventions of the '329 Patent are generally directed to systems and methods for inspecting railroad track. In general, claim 16 of the '329 Patent is directed to a track inspection system that requires at least one light generator, at least one optical receiver, and a processor for detecting a “misaligned or sunken tie plate of the railroad track bed.”

29. Tetra Tech Canada, by itself or through the conduct of Tetra Tech EBA, has directly infringed, and continues to directly infringe, one or more claims of the '329 Patent, including at least claim 16, by using, selling, and/or offering to sell 3DTAS in the United States or importing 3DTAS into the United States. Upon information and belief, 3DTAS includes at least one laser (“light generator”) used to project a beam across the railroad track bed and at least one camera (“optical receiver”) used to generate a plurality of images representative of a profile of at least a portion of the railroad track bed. Upon information and belief, 3DTAS also includes a processor that uses an algorithm for detecting a misaligned or sunken tie plate of the railroad track bed, as recited in claim 16 of the '329 Patent.

30. On information and belief, and to the extent any part of the accused 3DTAS system was operated by customers of Tetra Tech Canada, Tetra Tech Canada “used” 3DTAS



pursuant to 35 U.S.C. § 271(a) because it put the 3DTAS system as a whole into service, controlled the system, and derived a benefit from the system.

31. In the alternative, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, has knowingly induced and continues to induce its customers, including Canadian National Railway, to infringe one or more claims of the '329 Patent, including at least claim 16, by intentionally aiding and instructing customers to use the 3DTAS system in a manner that directly infringes the '329 Patent. Specifically, on information and belief, those customers, including Canadian National Railway, put the 3DTAS system as a whole into service, controlled the system, and derived a benefit from the system, and thus "used" 3DTAS in an infringing manner pursuant to 35 U.S.C. § 271(a), even if part of the accused 3DTAS system, including the data processor, was operated by Tetra Tech Canada or Tetra Tech EBA. On information and belief, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, provided hardware for the 3DTAS system to customers, including Canadian National Railway. This hardware included at least one optical receiver and at least one light generator used to inspect a railroad track bed. On information and belief, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, instructed customers, including Canadian National Railway, to among other things use this hardware to inspect a railroad track bed in such a way that the customers' actions constituted an infringing use of at least claim 16 of the '329 Patent.

32. Tetra Tech Canada and Tetra Tech EBA had pre-suit knowledge of the '329 Patent, and their infringement has been willful, deliberate, and intentional. In a letter dated December 29, 2014, Georgetown notified Tetra Tech EBA of the '329 Patent and enclosed a copy of the '329 Patent for review. A true and correct copy of Georgetown's December 29, 2014 letter is attached as **Exhibit D**. In a letter dated January 12, 2015, Tetra Tech EBA

acknowledged receipt of Georgetown's letter. A true and correct copy of Tetra Tech EBA's January 12, 2015 letter is attached as **Exhibit E**. Tetra Tech EBA and Tetra Tech Canada acted and continued to act in disregard of the high likelihood that its actions constituted infringement of a valid patent, and knew, or should have known, of that objectively high risk.

33. Tetra Tech Canada is liable for infringement of the '329 Patent pursuant to 35 U.S.C. §§ 271(a) and 271(b).

34. If Tetra Tech Canada's infringing activities are not enjoined, Georgetown will suffer irreparable harm that cannot be adequately compensated by a monetary award.

35. Georgetown has suffered economic harm as a result of Tetra Tech Canada's infringing activities in an amount to be proven at trial.

**SECOND CLAIM FOR RELIEF**  
**Infringement of the '956 Patent**

36. Each of the preceding paragraphs are incorporated by reference as if set forth fully herein.

37. Georgetown owns all substantial rights to the '956 Patent, including the right to exclude others and to sue and recover damages for the past, present, and future infringements thereof.

38. The inventions of the '956 Patent are generally directed to systems and methods for inspecting railroad track. In general, claim 27 of the '956 Patent is directed to a track inspection system that requires at least one light generator, at least one light receiver, and a processor for determining whether a tie plate is "misaligned or sunken."

39. Tetra Tech Canada, by itself or through the conduct of Tetra Tech EBA, has directly infringed, and continues to directly infringe, one or more claims of the '956 Patent, including at least claim 27, by using, selling, and/or offering to sell 3DTAS in the United States

or importing 3DTAS into the United States. Upon information and belief, 3DTAS includes at least one laser (“light generator”) used to project a beam across the railroad track bed and at least one camera (“light receiver”) used to generate an image of the portion of the railroad track bed. Upon information and belief, 3DTAS also includes a processor configured to determine whether a tie plate is misaligned or sunken, as recited in claim 27 of the ’956 Patent.

40. On information and belief, and to the extent any part of the accused 3DTAS system was operated by customers of Tetra Tech Canada, Tetra Tech Canada “used” 3DTAS pursuant to 35 U.S.C. § 271(a) because it put the 3DTAS system as a whole into service, controlled the system, and derived a benefit from the system.

41. In the alternative, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, has knowingly induced and continues to induce its customers, including Canadian National Railway, to infringe one or more claims of the ’956 Patent, including at least claim 27, by intentionally aiding and instructing customers to use the 3DTAS system in a manner that directly infringes the ’956 Patent. Specifically, on information and belief, those customers, including Canadian National Railway, put the 3DTAS system as a whole into service, controlled the system, and derived a benefit from the system, and thus “used” 3DTAS in an infringing manner pursuant to 35 U.S.C. § 271(a), even if part of the accused 3DTAS system, including the data processor, was operated by Tetra Tech Canada or Tetra Tech EBA. On information and belief, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, provided hardware for the 3DTAS system to customers, including Canadian National Railway. This hardware included at least one optical receiver and at least one light generator used to inspect a railroad track bed. On information and belief, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, instructed customers, including Canadian National Railway, to among other things use this

hardware to inspect a railroad track bed in such a way that the customers' actions constituted an infringing use of at least claim 27 of the '956 Patent.

42. On information and belief, Tetra Tech Canada and Tetra Tech EBA had pre-suit knowledge of the '956 Patent, and their infringement has been willful, deliberate, and intentional. Despite knowledge of the '956 Patent, Tetra Tech EBA and Tetra Tech Canada acted and continued to act in disregard of the high likelihood that its actions constituted infringement of a valid patent, and knew, or should have known, of that objectively high risk.

43. Tetra Tech Canada is liable for infringement of the '956 Patent pursuant to 35 U.S.C. §§ 271(a) and 271(b).

44. If Tetra Tech Canada's infringing activities are not enjoined, Georgetown will suffer irreparable harm that cannot be adequately compensated by a monetary award.

45. Georgetown has suffered economic harm as a result of Tetra Tech Canada's infringing activities in an amount to be proven at trial.

**THIRD CLAIM FOR RELIEF**  
**Infringement of the '320 Patent**

46. Each of the preceding paragraphs are incorporated by reference as if set forth fully herein.

47. Georgetown owns all substantial rights to the '320 Patent, including the right to exclude others and to sue and recover damages for the past, present, and future infringements thereof.

48. The inventions of the '320 Patent are generally directed to systems and methods for determining rail seat abrasion of railroad track. In general, claim 1 of the '320 Patent is directed to a track inspection system that requires at least one light generator, at least one

camera, and a processor that compensates for tilt of the railroad track and determines whether rail seat abrasion is present.

49. Tetra Tech Canada, by itself or through the conduct of Tetra Tech EBA, has directly infringed, and continues to directly infringe, one or more claims of the '320 Patent, including at least claim 1, by using, selling, and/or offering to sell 3DTAS in the United States or importing 3DTAS into the United States. Upon information and belief, 3DTAS includes at least one laser ("light generator") used to project a beam across the railroad track bed and at least one camera used to generate a plurality of images representative of a profile of at least a portion of the railroad track bed. Upon information and belief, 3DTAS also includes a processor that compensates for tilt of the railroad track and determines whether rail seat abrasion is present, as recited in claim 1 of the '320 Patent.

50. On information and belief, and to the extent any part of the accused 3DTAS system was operated by customers of Tetra Tech Canada, Tetra Tech Canada "used" 3DTAS pursuant to 35 U.S.C. § 271(a) because it put the 3DTAS system as a whole into service, controlled the system, and derived a benefit from the system.

51. In the alternative, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, has knowingly induced and continues to induce its customers, including Canadian National Railway, to infringe one or more claims of the '320 Patent, including at least claim 1, by intentionally aiding and instructing customers to use the 3DTAS system in a manner that directly infringes the '320 Patent. Specifically, on information and belief, those customers, including Canadian National Railway, put the 3DTAS system as a whole into service, controlled the system, and derived a benefit from the system, and thus "used" 3DTAS in an infringing manner pursuant to 35 U.S.C. § 271(a), even if part of the accused 3DTAS system, including the data

processor, was operated by Tetra Tech Canada or Tetra Tech EBA. On information and belief, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, provided hardware for the 3DTAS system to customers, including Canadian National Railway. This hardware included at least one optical receiver and at least one light generator used to inspect a railroad track bed. On information and belief, Tetra Tech Canada, by itself or through the acts of Tetra Tech EBA, instructed customers, including Canadian National Railway, to among other things use this hardware to inspect a railroad track bed in such a way that the customers' actions constituted an infringing use of at least claim 1 of the '320 Patent.

52. Tetra Tech Canada and Tetra Tech EBA had pre-suit knowledge of the '320 Patent, and their infringement has been willful, deliberate, and intentional. In a letter dated December 29, 2014, Georgetown notified Tetra Tech EBA of the '320 Patent and enclosed a copy of the '320 Patent for review. A true and correct copy of Georgetown's December 29, 2014 letter is attached as **Exhibit D**. In a letter dated January 12, 2015, Tetra Tech EBA acknowledged receipt of Georgetown's letter. A true and correct copy of Tetra Tech EBA's January 12, 2015 letter is attached as **Exhibit E**. Tetra Tech EBA and Tetra Tech Canada acted and continued to act in disregard of the high likelihood that its actions constituted infringement of a valid patent, and knew, or should have known, of that objectively high risk.

53. Tetra Tech Canada is liable for infringement of the '320 Patent pursuant to 35 U.S.C. §§ 271(a) and 271(b).

54. If Tetra Tech Canada's infringing activities are not enjoined, Georgetown will suffer irreparable harm that cannot be adequately compensated by a monetary award.

55. Georgetown has suffered economic harm as a result of Tetra Tech Canada's infringing activities in an amount to be proven at trial.

**DEMAND FOR JURY TRIAL**

56. Georgetown hereby demands a trial by jury on all issues so triable pursuant to Federal Rule of Civil Procedure 38.

**PRAYER FOR RELIEF**

WHEREFORE, Georgetown prays for entry of judgment against Tetra Tech Canada as follows:

1. That judgment be entered in favor of Georgetown on all claims for relief raised in the Complaint;
2. That judgment and order be entered that Tetra Tech Canada has infringed, directly, jointly, and/or indirectly, by way of inducing and/or contributing to the infringement of the '329 Patent, the '956 Patent, and the '320 Patent;
3. That judgment and order be entered that each of the '329 Patent, the '956 Patent, and the '320 Patent, is valid and enforceable;
4. That judgment and order be entered that Tetra Tech Canada's infringement is and/or has been willful and increasing the award of damages to Georgetown up to three times in view of Tetra Tech Canada's willful infringement;
5. That a permanent injunction be entered enjoining Tetra Tech Canada and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement, inducing the infringement of, or contributing to the infringement of the '329 Patent, the '956 Patent, and the '320 Patent;
6. That judgment and order be entered requiring Tetra Tech Canada to pay Georgetown its damages, costs, expenses, and prejudgment and post-judgment interest for Tetra



Tech Canada's infringement of the '329 Patent, the '956 Patent, and the '320 Patent, as provided under 35 U.S.C. § 284;

7. That judgment and order be entered awarding Georgetown enhanced damages as provided under 35 U.S.C. § 284;

8. That judgment and order be entered finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding Georgetown its reasonable attorney's fees and costs of suit;

9. That judgment and order be entered awarding to Georgetown all other relief to which Georgetown may prove itself to be entitled; and

10. For such other and further relief as the Court deems just and proper.

DATED this 27th day of July, 2018.

Respectfully submitted,

By: /s/ Trey Yarbrough

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